A STUDY OF TWO PLUMAGE ABERRATIONS IN THE MALE REDWINGED BLACKBIRD (*AGELAIUS PHOENICEUS*)[1]

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ABSTRACT

Two different traits of albinism were studied in samples of male Redwinged Blackbirds. Eighty-eight per cent of 627 male Redwings sampled possessed a white spot at the base of the rectrices, the size of this white area being smaller in the immature redwing males than in the adults. Samples of immature males after they had obtained first basic plumage revealed a white spot size distribution essentially the same as that found in the adult sample. Breast banding, the other trait studied, was found to occur in 5.2 per cent of the adult males sampled.

INTRODUCTION

This study compares the prevalence of two plumage aberrations in the adult male Redwinged Blackbird, *Agelaius phoeniceus*, in northern Ohio with those found by Nero (1954) in a study of adult male redwings near Madison, Wisconsin. The study areas were located in Ottawa County, in cattail marshes which are part of Ottawa National Wildlife Refuge and Crane Creek State Park, located along the south west shore of Lake Erie in northern Ohio.

METHODS

The specimens were captured in three large poultry-wire decoy traps at three different locations in the area. From June 22 to July 27, 1966, 191 adult and 238 immature male redwings were taken. Additional samples of immature redwings, totaling 198 birds, were secured on October 15 and October 23, after they had acquired their first basic plumage.

Adults were checked for the presence of albinism, using Nero's (1954) classification system. Of his four categories, only partial albinism (complete or partial inhibition of pigment within certain localized areas) was found. Immatures were examined only for the presence of a white base on the rectrices. These light areas are asymmetrical, with the median web showing the greater area of white, and are concealed by the tail coverts. The sizes of the white areas were measured with a rule pushed under the coverts to the base of the tail.

RESULTS AND DISCUSSION

Breast banding (a nearly concealed band of white-marked feathers across the breast) occurred in five per cent of the adult birds (table 1). Nero found this characteristic in 11 per cent of the adult males he examined.

The presence of a white area at the base of the rectrices was found in 86 per cent of the adult male and 88 per cent of the immature male redwings caught in early summer, and 89 per cent of the immature males caught in October. Nero (1954) found this trait in 88 per cent of the adult males he collected in the spring. Nero (1960) also discovered that a second sample of adult birds taken in the summer of 1956 near Regina, Saskatchewan, had essentially the same frequency.

About one-third of the adult males had a white area 11 mm or larger (table 2). Nero (1954), however, found that 60 per cent of his sample had a white area of this size. On the basis of limited observations, he concluded that the size of the white area was constant in successive molts in a given bird. The lack of agreement between the Wisconsin and Ohio populations indicates some differences in the manifestation of what Nero considered to be a somatic trait.

[1]Manuscript received January 27, 1967.

TABLE 1

Frequency occurrence of partial albinism in Ohio male redwings

Age group	Sample size	Breast no.	Banding per cent	White no.	Tail base per cent
Adult males (early summer)	191	10	5.2	165	86.4
Immature males (early summer)	238	——	——	210	88.2
Immature males (after pre-basic molt)	198	——	——	177	89.4
Totals	627			522	88.0

Of the immature birds captured in June and July, only five per cent had a basal spot 11 mm or longer (table 2). Nero's (1954) survey of non-adult markings was insufficient for adequate comparison. In my study, a second sample of first-year birds, collected in October after the first pre-basic molt, revealed that the size distribution was essentially the same as in the early summer adult sample (table 2). This indicates that immature males after obtaining basic plumage are essentially the same as adult males, but that immature males before obtaining basic plumage have a smaller white area.

During the course of this study, several abnormally pigmented Starlings, *Sturnus vulgaris*, and Common Grackles, *Quiscalus quiscula*, along with one female Cowbird, *Molothrus ater*, were also collected.

TABLE 2

White tail base measurements for male Redwinged Blackbirds

Length (mm)	Adults			Immatures		Immatures (after pre-basic molt)	
	Ohio		Wisconsin[1]	Ohio		Ohio	
	No.	Per cent	Per cent	No.	Per cent	No.	Per cent
1–5	26	25.3	11	76	45.7	48	27.1
6–10	43	41.7	29	81	48.8	80	45.2
11–15	25	24.3	42	8	4.8	37	20.9
16–20	9	8.7	12	1	0.7	11	6.2
over 20	0	——	6	0	——	1	0.6

[1]Nero 1954.

ACKNOWLEDGMENTS

I wish to acknowledge and give special thanks to Dr. William B. Jackson for suggesting this study and for critizing the manuscript.

SUMMARY

1. Two different traits of albinism in a sample of adult male Redwinged Blackbirds taken in northern Ohio were studied. Breast banding was found to occur in five per cent of the adult males sampled, while eighty-eight per cent of the male redwings possessed the trait of white at the base of the rectrices.

2. In immature redwing males, the size of this white spot was found to be smaller than that found in the adult male redwings, even though the frequencies for this trait were approximately the same in both age groups.

3. A second sampling of immature redwing males, after they had obtained first basic plumage, revealed a white-spot size distribution essentially the same as that found in adults, suggesting constancy in adults.

LITERATURE CITED

Nero, R. W. 1954. Plumage aberrations of the redwing. Auk, 71: 137–155.

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